COLORADO HAND THERAPY

UPDATE

VOLUME I NUMBER 1 SPRING 2005

NEWS & EVENTS

CHT obtains Cigna and Pinnacol Contracts. For list of participating Insurances call 303-777-2393

Hand Surgery Associates conference. "Hand and Upper Extremity Disorders: A Primary Care Perspective." May 20-22, 2005 Denver. 303-744-7078 for more Information.

New Clinic Opening Denver - March 2005 Rose Medical Center Campus. Call 303-777-2393 for more information.

Bilingual Hand Therapist. Colorado Hand Therapy has a Spanish speaking therapist at the Littleton clinic.

HAND THERAPY CLINICAL UPDATE:

DISTAL RADIUS FRACTURE THERAPY

BOBBI OWSLEY, OTR, CHT

Distal radius fractures generally occur from a fall on an outstretched hand and have been estimated to account for approximately one sixth of all fractures treated in emergency departments (*Am J Pub Health* 1982). These fractures are more common in women and increase with the aging process. In a prospective study performed over eight seasons at Vail Summit Orthopaedics & Sports Medicine, 873 wrist injuries to snowboarders were diagnosed with 78% of these being wrist fractures. Whether it is from a fall from extreme snowboarding or simply walking the dog, these fractures range from simple non-displaced that require casting to intra-articular, comminuted fractures requiring surgery. The goal in either instance is to restore the distal radius anatomy with minimal impact on the surrounding soft tissues and regain full functional use for activities of daily living.

WHICH PATIENTS SHOULD BE REFERRED TO THERAPY?

During the wrist immobilization phase, referral to therapy is necessary if edema and finger stiffness has not resolved within 1-2 weeks of casting or surgical intervention. For those patients who are experiencing no deficits of the non-involved joints or soft tissues of the upper extremity, there is no need to refer them to therapy until the wrist can be mobilized.

EARLY REFERRAL: Our clinical experience has been the earlier we see these patients once their fracture is stable, the better their outcome and fewer visits needed. For surgical and casted patients, the first therapy visit consists of education to minimize fears of moving body parts outside of the cast to minimize stiffness to the digits, elbow and shoulder. For surgical patients, pin care, edema control and fabrication of a supportive splint accompanies this initial visit, 5-7 days post surgery. Patients are given a home exercise program and seen on an as needed basis until the cast or external fixator is removed.

6-WEEKS: Commonly, at 6 weeks, the fixator is removed and AROM is initiated to the wrist and forearm. Limited wrist extension and supination are common with wrist fractures. Edema management including retrograde massage, compression garments, kinesiotaping and modalities are

Continued on other side

COMPLICATIONS OF DISTAL RADIUS FRACTURES

IN SOK YI, M.D., HAND SURGERY ASSOCIATES, P.C.

The distal radial fracture was described by Dr. Abraham Colles in 1814. Dr. Colles' observations brought to light the distal radius fracture however he also stated that following a short period of immobilization patients return back to reasonable function. Contrary to what Dr. Colles originally described, patients who sustain high-energy injuries or who have settling of a distal radius fracture, can experience complications. Some complications can be avoided, but not all of them! Some of these complications are describe below.

- Identification of the scapholunate interosseous ligament is important especially with intra-articular fractures. If this structure is injured, it should be repaired during the treatment of the distal radius fracture.
- After the distal radius is healed and therapy has been initiated to work on range of motion, TFC tears may present themselves with patient complaints of persistent ulnar sided wrist pain.
- Distal radial ulnar joint instability is difficult to assess initially at the time of injury due to the deformity present at the wrist. Immobilization will assist in healing the distal radial ulnar joint and result in diminished pain. If the patient experiences a persistent problem after range of motion is regained, instability of the DRUJ may need to be addressed surgically.
- Ulnar positive variance occurs when the distal radius settles and the ulna becomes more prominent causing impaction of the lunate and the triquetrum. This results in pain on the ulnar aspect of the wrist with ulnar deviation. If a fracture fixation method is stable, shortening of the radius will be prevented. Use of bone graft intra-operatively may help minimize the shortening, however, in severely comminuted fractures this complication is sometimes inevitable. Newer internal fixation techniques allow early range of motion to reduce stiffness.
- Radiographic arthrosis occurs in distal radius fractures with articular congruence, which can also be minimized with surgery.

The distal radius fracture has been described for almost 200 years. It continues to be a very difficult and challenging injury to treat and requires meticulous treatment of all involved tissues.

Dr. In Sok Yi is a Board Certified Hand Surgeon with Hand Surgery Associates, P.C., Denver, Colorado.

Published by:

COLORADO HAND THERAPY, LLC

Comprehensive Upper Extremity Rehabilitation

Serving Denver-Metro residents since 1979

TOLL FREE 1.866.322.HAND

DENVER
Porter Medical Plaza
2535 S. Downing, Suite 580
Denver, CO 80210
303.777.2393

Physicians Office Building II
4500 E. 9th Avenue, Suite 400
Denver, CO 80220
303.377.4053

AURORA
Potomac Medical Plaza
830 Potomac Circle, Suite 385
Aurora, CO 80011
720.858.7080

LITTLETON
Arapahoe Medical Plaza II
7750 S. Broadway, Suite 160
Littleton, CO 80122
303.347.1417

LONETREE
The Aspen Building
10103 Ridge Gate Parkway, Suite 309
Lonetree, CO 80124
720.842.0225

MEET OUR THERAPIST

Starla Maier-Walford

Starla Maier-Walford graduated Summa Cum Laude from Colorado State University in 1999. She has been working as a hand therapist since her internship at Colorado Hand Therapy in October 1999. While at CSU, Starla pursued specialized classes in the treatment of myofascial disorders and co-presented a poster on her research of trigger point release for patients with chronic pain. She has lectured on wound management and cubital tunnel syndrome. Starla is bi-lingual and has a special interest in the treatment of Spanish speaking patients. She believes that in order to regain full function, a patient must be viewed in their entirety. This requires assessment of their work, home and recreational activities. "Empowering patients really makes a difference in patients' recovery" notes Starla. Starla also enjoys the challenge of treating patients with multiple diagnoses, including traumatic injuries. She currently works in our Littleton clinic. She is a member of the American Society of Hand Therapists and the Denver Hand Special Interest Group.

(Continued from other side.)

DISTAL RADIUS FRACTURE THERAPY

used to help decrease pain and increase motion. Most patients are also started on gentle hand strengthening exercises with putty or a hand exerciser.

7-8 WEEKS: At 7-8 weeks, PROM may be initiated to the wrist and forearm once the physician feels the fracture is clinically healed to the point of tolerating passive stretch. Progressive strengthening exercises are initiated to start preparing the patient to return to normal use of the hand in all daily activities at 10-12 weeks pending the fracture healing.

SPLINTING: Dynamic splints are used to facilitate digit and/or wrist motion. It has been our experience that the sooner these splints are initiated within the limits of the healing fracture, the shorter duration they are needed. When joint end feel is more pliable, it is much easier to make changes in the elastic tissues than once time has progressed and the end range of the joint has become hard.

With therapist guidance and education, many complications such as ulnar sided wrist pain, stiff/frozen shoulder, scar adherence or irreversible tightness can be addressed early and result in a more functional, successful outcome.

Bobbi Owsley is the Clinical Coordinator for Colorado Hand Therapy. She received her hand training at Emory University in Atlanta. She has been awarded the R.L. Petzolt Prize of Excellence in Research and has published articles related to hand injuries.

Presorted Std.
U.S. Postage
PAID
Denver, CO
Permit No. 0000

COLORADO HAND THERAPY, LLC
Porter Medical Plaza
2535 S. Downing, Suite 580
Denver, CO 80210